

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-137. Canceled

138. (Previously Presented) A platform comprising:

a microtome sectionable tissue support which is formed of material which can be successfully sectioned in a microtome, is resistant to histological stains, and is resistant to degradation from solvents and chemicals used to fix, process and stain tissue; and an embedding medium in which said tissue support is embedded.

139. (Previously Presented) A tissue sample container comprising:

a tissue support, said tissue support being formed of material which can be successfully sectioned in a microtome, resistant to histological stains, resistant to degradation from solvents and chemicals used to fix, process and stain tissue; and a deflectable structure which engages and retains tissue in place during processing and embedding.

140. (Previously Presented) A biopsy tissue harvesting device which deposits a biopsy sample onto a tissue support directly from a harvesting device comprising:

a tissue support, said tissue support being formed of material which can be successfully sectioned in a microtome, resistant to histological stains, resistant to degradation from solvents and chemicals used to fix, process and stain tissue.

141. (Currently Amended) A histological tissue biopsy sample support comprising:
a frame; a tissue support releasably retained on said frame; said tissue support being formed of material which can be successfully sectioned in a microtome, resistant to histological stains, resistant to degradation from solvents and chemicals used to fix, process and stain tissue and is non-distracting during tissue analysis ~~processing and slide preparation~~; a microscopic examination sample support on said tissue support; and an embedding medium in which said tissue support is embedded.

142. (Previously Presented) A histologic tissue biopsy sample orientation device comprising:

supporting legs formed of microtome sectionable material;
normally closed tissue pinchers on said legs; and
pincher openers on said legs.

143. (Previously Presented) A histologic tissue biopsy sample orientation device comprising:

supporting legs formed of microtome sectionable material;
normally open tissue pinchers on said legs; and
pincher closers on said legs.

144. (Currently Amended) A platform comprising:

a microtome sectionable tissue support which is formed of material which can be successfully sectioned in a microtome, resistant to histological stains, resistant to degradation from solvents and chemicals used to fix, process and stain tissue and is non-distracting during tissue analysis ~~processing and slide preparation~~.

145. (Currently Amended) A tissue sample container comprising:

a microtome sectionable tissue support which is formed of material which can be successfully sectioned in a microtome, resistant to histological stains, resistant to degradation from solvents and chemicals used to fix, process and stain tissue and is non-distracting during tissue analysis ~~processing and slide preparation~~; and

deflectable structure which engages and retains tissue in place during processing and embedding.

146. (Previously Presented) A platform comprising:

a tissue support which is microtome sectionable; and an embedding medium in which said tissue support is embedded, said embedding medium being formed of material that can be successfully sectioned in a microtome whereby said tissue support and said embedding medium may be simultaneously sectioned in the microtome.

147. (Previously Presented) A histologic tissue sample support, said support configured to hold a tissue sample and being formed of a material which can be successfully sectioned in a microtome, said support further being resistant to degradation from solvents and chemicals used to fix and process the tissue sample during a histologic procedure.

148. (Previously Presented) The histologic tissue sample support of claim 147, wherein said tissue sample support is embedded in a tissue embedding medium, said embedding medium being formed of material which can be successfully sectioned in a microtome.

149. (Previously Presented) The histologic tissue sample support of claim 147, wherein said support further comprises:

a cassette having a bottom portion configured to hold the tissue sample, and a lid configured to couple with said bottom portion to hold the tissue sample in a desired orientation.

150. (Previously Presented) The histologic tissue sample support of claim 149, wherein said bottom portion further comprises five sides, the five sides including a bottom wall and four side walls defining an interior space for holding the tissue sample, wherein the material can be successfully sectioned by slicing through said bottom wall to expose the tissue sample.

151. (Previously Presented) The histologic tissue sample support of claim 149, wherein said lid is movably connected to said bottom portion.

152. (Previously Presented) The histologic tissue sample support of claim 147, wherein said material forming said support is at least translucent so as to be non-distracting during tissue analysis.

153. (Previously Presented) The histologic tissue sample support of claim 147, wherein said material is colored to provide a signal as to when to stop a facing operation thereof while sectioning said support in the microtome.

154. (Previously Presented) The histologic tissue sample support of claim 147, further comprising:

deflectable structure which engages and retains the tissue sample in place during processing, embedding and sectioning in the microtome.

155. (Previously Presented) The histologic tissue sample support of claim 147, wherein said support is formed of a polymer.

156. (Previously Presented) The histologic tissue sample support of claim 155, wherein said polymer is a fluorinated polymer.

157. (Previously Presented) The histologic tissue sample support of claim 155, wherein said polymer is a fluoropolymer.

158. (Previously Presented) The histologic tissue sample support of claim 147, wherein said support is porous.

159. (Previously Presented) The histologic tissue sample support of claim 158, wherein said support includes side edges and elongated slots directed nonparallel to said side edges.

160. (Previously Presented) The histologic tissue sample support of claim 147, further comprising:

tissue sample retaining structure configured to engage the tissue sample and holding the sample in place.

161. (Previously Presented) The histologic tissue sample support of claim 147, further comprising:

tissue sample retaining structure configured to engage multiple tissue samples and maintain the multiple tissue samples in desired orientations whereby the multiple tissue samples all can be cut by a microtome in a single pass.

162. (Previously Presented) The histologic tissue sample support of claim 147, wherein said support is non-distracting during tissue examination which is performed subsequent to slide preparation.

163. (Previously Presented) The histologic tissue sample support of claim 147, wherein said support is resistant to histological stains.

164. (Previously Presented) A histologic tissue sample support structure, comprising:
a support member configured to hold a tissue sample and being formed of a material which can be successfully sectioned in a microtome; and
a tissue embedding medium in which said support member is embedded, said embedding medium being formed of material which can be successfully sectioned in a microtome.

165. (Previously Presented) A histologic tissue sample cassette, said cassette having a bottom portion configured to hold a tissue sample in a desired orientation and at least one side wall for containing the tissue sample, said cassette further being formed of a material which can be successfully sectioned in a microtome.

166. (Previously Presented) The histologic tissue sample cassette of claim 165, further comprising:
a lid configured to couple with said bottom portion to further contain the tissue sample during an embedding process.

167. (Previously Presented) Apparatus for holding a histologic tissue sample while sectioning the tissue sample in a microtome, the apparatus comprising:

a frame;

a tissue sample support coupled to said frame, said support configured to hold the tissue sample and being formed of a material which can be successfully sectioned in a microtome, said support further being resistant to degradation from solvents and chemicals used to fix and process the tissue sample during a histologic procedure.

168. (Previously Presented) The apparatus of claim 167, wherein said tissue sample support is releasably coupled to said frame and said frame is further configured for releasable securement within a microtome chuck.

169. (Previously Presented) The apparatus of claim 167, wherein said frame includes an interior and said tissue sample support is sized to fit and move within said interior between at least a first position and a second position, said first position being used during processing of the tissue sample, and the second position being used to expose the tissue outward of said frame in a position for allowing the tissue sample to be sectioned in the microtome.

170. (Previously Presented) The apparatus of claim 167, further comprising:

an embedding mold configured to releasably hold said frame and tissue sample support while embedding material is deposited within said embedding mold and frame to embed the tissue sample.

171. (Previously Presented) The apparatus of claim 167, further comprising:

a tissue embedding medium in which said tissue sample support is embedded, said embedding medium being formed of material which can be successfully sectioned in a microtome.

172. (Previously Presented) The apparatus of claim 167, wherein said support further comprises:

a cassette having a bottom portion configured to hold the tissue sample, and a lid configured to couple with said bottom portion to hold the tissue sample in a desired orientation.

173. (Previously Presented) The apparatus of claim 172, wherein said bottom portion further comprises five sides, the five sides including a bottom wall and four side walls defining an interior space for holding the tissue sample, wherein the material can be successfully sectioned by slicing through said bottom wall to expose the tissue sample.

174. (Previously Presented) The apparatus of claim 172, wherein said lid is movably connected to said bottom portion.

175. (Previously Presented) The apparatus of claim 167, wherein said material forming said support is at least translucent so as to be non-distracting during tissue analysis.

176. (Previously Presented) The apparatus of claim 167, further comprising:
deflectable structure which engages and retains tissue sample in place during processing, embedding and sectioning in the microtome.

177. (Previously Presented) The apparatus of claim 167, wherein said support is formed of a polymer.

178. (Previously Presented) The apparatus of claim 177, wherein said polymer is a fluorinated polymer.

179. (Previously Presented) The apparatus of claim 177, wherein said polymer is a fluoropolymer.

180. (Previously Presented) The apparatus of claim 167, wherein said support is porous.

181. (Previously Presented) The apparatus of claim 180, wherein said support includes side edges and elongated slots directed nonparallel to said side edges.

182. (Previously Presented) The apparatus of claim 167, further comprising:

tissue sample retaining structure configured to engage the tissue sample and maintain the sample in a desired orientation.

183. (Previously Presented) The apparatus of claim 167, further comprising:

tissue sample retaining structure configured to engage multiple tissue samples and maintain the multiple tissue samples in desired orientations whereby the multiple tissue samples all can be cut by a microtome in a single pass.

184. (Previously Presented) The apparatus of claim 167, wherein said support is non-distracting during tissue examination which is performed subsequent to slide preparation.

185. (Previously Presented) The apparatus of claim 167, wherein said support is resistant to histological stains.

186. (Previously Presented) The apparatus of claim 167, wherein said material is colored to provide a signal as to when to stop a facing operation thereof while sectioning said support in the microtome.

187. (Previously Presented) A tissue sample container assembly comprising:

a histologic tissue sample support, said support being configured to hold a tissue sample and being formed of a material which can be successfully sectioned in a microtome, said support further being resistant to degradation from solvents and chemicals used to fix and process the tissue sample during a histologic procedure;

a container body with an opening for receiving said histologic tissue sample support; and

a cap configured to selectively open and close said opening.

188. (Previously Presented) The tissue sample container assembly of claim 187, wherein said cap allows injection of the tissue sample into said container body.

189. (Previously Presented) The tissue sample container assembly of claim 187, wherein said support further comprises:

a filter having a bottom portion configured to hold the tissue sample, and a lid configured to couple with said bottom portion to hold the tissue sample in a desired orientation.

190. (Previously Presented) The tissue sample container assembly of claim 189, wherein said bottom portion further comprises five sides, the five sides including a bottom wall and four side walls defining an interior space for holding the tissue sample, wherein the material can be successfully sectioned by slicing through said bottom wall to expose the tissue sample.

191. (Previously Presented) The tissue sample container assembly of claim 189, wherein said lid is movably connected to said bottom portion.

192. (Previously Presented) The tissue sample container assembly of claim 187, wherein said material forming said support is at least translucent so as to be non-distracting during tissue analysis.

193. (Previously Presented) The tissue sample container assembly of claim 187, further comprising:

deflectable structure which engages and retains the tissue sample in place during processing, embedding and sectioning in the microtome.

194. (Previously Presented) The tissue sample container assembly of claim 187, wherein said support is formed of a polymer.

195. (Previously Presented) The tissue sample container assembly of claim 194, wherein said polymer is a fluorinated polymer.

196. (Previously Presented) The tissue sample container assembly of claim 194, wherein said polymer is a fluoropolymer.

197. (Previously Presented) The tissue sample container assembly of claim 187, wherein said support is porous.

198. (Previously Presented) The tissue sample container assembly of claim 197, wherein said support includes side edges and elongated slots directed nonparallel to said side edges.

199. (Previously Presented) The tissue sample container assembly of claim 187, wherein said material is colored to provide a signal as to when to stop a facing operation thereof while sectioning said support in the microtome.

200. (Previously Presented) The tissue sample container assembly of claim 187, further comprising:

tissue sample retaining structure configured to engage the tissue sample and maintain the sample in a desired orientation.

201. (Previously Presented) The tissue sample container assembly of claim 187, further comprising:

tissue sample retaining structure configured to engage multiple tissue samples and maintain the multiple tissue samples in desired orientations whereby the multiple tissue samples all can be cut by a microtome in a single pass.

202. (Previously Presented) The tissue sample container assembly of claim 187, wherein said support is non-distracting during tissue examination which is performed subsequent to slide preparation.

203. (Previously Presented) The tissue sample container assembly of claim 187, wherein said support is resistant to histological stains.

Claims 204-222 Canceled.

223. (Previously Presented) A cassette for receiving and retaining a tissue sample for processing prior to histological examination, comprising:

a top portion and a bottom portion snap or friction mounted together, the bottom portion having a bottom wall and a side wall each being removable after a procedure is performed to embed the tissue sample in said bottom portion.

224. (Previously Presented) The cassette of claim 223, wherein said bottom wall and said side wall are removable by sectioning in a microtome while sectioning said cassette and tissue sample after embedding said cassette and tissue sample in an embedding media.

225. (Previously Presented) The cassette of claim 223, wherein said top and bottom portions are molded of a synthetic plastic material.

226. (Previously Presented) A cassette for receiving and retaining a tissue sample in a desired orientation for processing and microtoming procedures prior to histological examination, comprising:

a support structure having a porous top, porous bottom and porous sides configured to surround and fix the tissue sample in the desired orientation during the processing and microtoming procedures prior to histological examination.

227. (Previously Presented) The cassette of claim 226, wherein said porous bottom and said porous sides are removable after a procedure is performed to embed the tissue sample in said support structure.

228. (Previously Presented) The cassette of claim 226, wherein said porous bottom and said porous sides are removable by sectioning in a microtome during the microtome procedure.

229. (Previously Presented) The cassette of claim 226, wherein said support structure is molded of a synthetic plastic material.

Claims 230-239 Canceled.